

Testimony
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**Testimony Title: The public health crisis of food insecurity,
and interventions that work: The Child Nutrition Programs**

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CHILDREN'S
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**Witnesses
to Hunger**

**Testimony: Child Nutrition
Mariana Chilton, PhD, MPH
March 4, 2010**

Chairwoman DeLauro, and distinguished members of the Committee, my name is Dr. Mariana Chilton. I am honored to be invited to provide this testimony as a public health research scientist at Drexel University School of Public Health in Philadelphia, Pennsylvania, and as a member of the national network of pediatric researchers, [Children's HealthWatch](#).

Children's HealthWatch is a multi-site pediatric research center that monitors the impact of public policies on the health and development of babies and toddlers under three years old. Our data on over 36,000 families collected over the last ten years reveals the serious consequences of hunger and food insecurity's impact on child health and development. My colleagues and I represent the disciplines of pediatrics, early childhood development, public health and anthropology, and we have research sites in Boston, Baltimore, Minneapolis, Little Rock and Philadelphia.

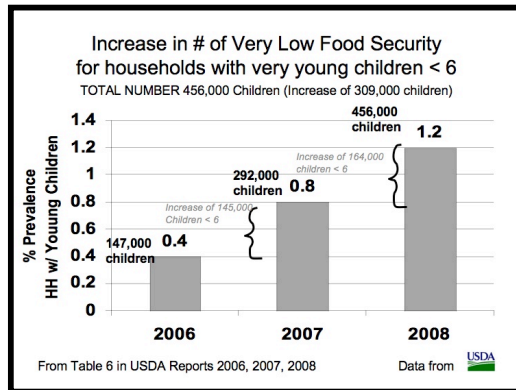
Young children and food insecurity: A public health crisis

Children's HealthWatch. Our very name implies that we are *watching* the children. During these economic hard times watching children's health take a major turn for the worse makes us almost want to turn our heads. It makes us want to turn our heads away in shame because the devastation is just too much. I am sure you know about the frightening increase in food insecurity and hunger in the United States that occurred between 2007 and 2008. Last year, the United States Department of Agriculture (USDA) reported that in 2007, the number of people in the United States that were food insecure (meaning they did not have access to enough food for an active and healthy life) numbered 36.2 million. In 2008, that number jumped to 49.1 million. For children, the increase went from 12.4 million children to almost 17 million children. For the children in the United States, that is a 37 percent increase in food insecurity in just one year (1, 2).

We have always known that families with the *youngest* children are most at risk for food insecurity and these recent numbers confirm that; 24.5 % (nearly one quarter) of households with children under six are food insecure in this country. That translates to 9,164,000 American kindergarteners, preschoolers, toddlers, and infants not getting adequate nutrition because their families cannot afford it (2).

Why are we focused on what is happening to the youngest children? Children grow and change dramatically in the first five years. The first three years, especially, are critically important for a child's physical, social, emotional and cognitive development. Children who do not get adequate nutrition in this period can recover but are less likely to reach their full potential. And what's happening to the children in the poorest circumstances? Their situation is even worse.

Among over five million children that currently experience the *most severe form of food insecurity*, almost 500,000 are children under the age of six. Between 2006 and 2008, over 300,000 more very young children slipped out of our reach and into this category of extreme hardship. Our research tells us that parents try as best they can to buffer children from the lack of food in a household by reducing the size of their own meals or by skipping them altogether. Once the scarcity reaches the level of the children, the household's situation is usually quite dire. In this category of severe food insecurity parents had to either reduce the quantity or the quality of the food these young children ate, or the children were reported to be hungry at times, but could not



eat because there was not enough money for food. Hardship does not have to be this dire to have a major impact on children. Our Children's HealthWatch research shows that even the mildest forms of household food insecurity negatively affect children's health and development (4).

This is a major public health crisis occurring right before our eyes. If we do not act on behalf of these children, we are very literally squandering the potential of our next generation.

Children's HealthWatch research has demonstrated that young children living in households that reported household food insecurity are 30% more likely to have a *history of hospitalization*, and 90% more likely to be reported in *fair or poor health* than children living in food secure homes (5).

Why? Because food insecurity and the accompanying lack of nutrition break down the immune system so that it does not do its job in fighting off bacteria and viruses, leaving the child vulnerable to repeated infections. In addition, children in food insecure households are almost two times more likely to suffer from *iron deficiency anemia* than their counterparts in households that were food secure (6). Iron deficiency anemia, in turn, is responsible for delayed cognitive, motor, and socioemotional development in young children.

Food insecurity affects not only children's physical health and increases the nation's annual cost of pediatric hospitalizations, but it also is associated with other costly outcomes such as developmental delays. For example, Children's HealthWatch found that infants and toddlers who lived in food insecure households had a 73% increased risk for *developmental delays* compared to infants and toddlers in food secure households. These findings remain consistent, even after controlling for other factors such as mothers' educational attainment, a child's medical history, and birth weight.

Developmental risk is an indicator of a delay in the emotional, cognitive, physical and social abilities necessary for a child to reach their developmental potential (7). These outcomes are not limited to very young children. Other research studies have shown that, compared to children in food secure homes, school-age children in food insecure homes were more likely to have seen a psychologist, have lower school grades, and were reported to have greater difficulty interacting with their peers than those in food secure homes (8). A more recent study has shown that even the mildest forms of food insecurity are associated with poor performance on standardized tests in both reading and mathematics (9). Certainly anyone who has missed a meal can attest to the fuzzy, irritable feeling of being hungry – imagine this being your reality day after day and trying to learn to talk and walk as a toddler or recognize numbers and letters as a preschooler.

Food insecurity is therefore a critical factor in a child's school readiness. As children fall behind their peers educationally, it becomes an opportunity missed and an additional hurdle to clear. Eventually, these hurdles pile up and become significant impediments to a person's life-long earning potential. One in four children currently lives in a food insecure home. The American people cannot afford this, nor do these Americans deserve to be destined to repeat the cycle of poverty and poor nutrition because their potential has been stunted from an early age.

Early intervention is the best way to prevent these problems. When one considers the lasting damage that food insecurity can do to a child's body and mind, early intervention is the only

tool we have. We have a very real opportunity in front of us to make change and improve the lives of thousands of children from birth all the way up through high school. The Child Nutrition Programs reach a broad swath of our children and they can reach them in ways that are seamless, providing meals in the places where children already are every day – at home, in childcare, at school.

Our recent Children's HealthWatch research demonstrates very concretely how programs included in the Child Nutrition Reauthorization can counteract the devastating impact that food insecurity has on our nation's children.

Interventions that work: Child Nutrition Reauthorization

1. Women Infants and Children Supplemental Nutrition Program (WIC)

The breadth and reach of the WIC program is extraordinary, as almost one half of the children born in our country currently participate in the program. WIC is known as one of the best nutrition and health programs in the world, as research shows WIC to be effective in protecting young children's health and development.

Children's HealthWatch research shows that children who received WIC, compared to those children who were eligible for WIC but did not receive it, were

- 21% more likely to be in a household that was food secure
- 16% more likely to be in excellent or good health
- More likely to have a healthy height and weight for their age
- 20% less likely to be at developmental risk (10).

Who were the children who were worse off than those on WIC? They were the ones who were eligible but did not get it due to administrative barriers.

Recommendations

Eliminate the barriers that prevent families from participating in WIC:

- *Fund WIC at a level that adequately supports states in meeting the needs of all eligible women, infants and children and supports the full implementation of the Institute of Medicine's recommendations for fruit and vegetable vouchers.*
- *Increase funding for nutrition education services and administration that ensure that WIC is effective as a health promotion program.*
- *Decrease barriers to application and reapplication – despite WIC's relatively high enrollment rate, there is still a need for outreach, translation services for those with limited English proficiency, and schedule accommodations for working mothers.*
- *Mandate coordination between local WIC offices and hospitals with significant maternity services to ensure that the program reaches more eligible families and that new mothers have access to breastfeeding support.*

2. Child and Adult Care Food Program (CACFP)

The CACFP currently subsidizes healthy meals for nearly three million low-income children a day in licensed childcare centers, and could potentially serve over 1.35 million children in homeless shelters across the country. It is one of the least understood programs encompassed in the Child Nutrition Program Reauthorization. Despite most people's lack of knowledge about this program, research has shown that the CACFP can have very positive impacts on child health and well-being. Recent research from California has shown that children who participate in CACFP have better nutrient intakes (11).

Our most recent Children's HealthWatch research builds on this base. We identified a subset of children in our dataset who are very likely participating in CACFP. In our report, we have shown that toddlers whose meals were supplied by the childcare provider were

- 28% less likely to be in fair or poor health
- 26% less likely to be hospitalized
- More likely to have a healthy weight and height for their age (12).

Given that the average cost of a 2-3 day hospital stay for a child between one and four years old was \$6,010 in 2006 (13), increased participation in CACFP could lead to significant cost savings for families and the healthcare system through ensuring that children are healthier, and thus less likely to be hospitalized.

Recommendations

Expand access, reduce barriers, and improve children's nutrition in CACFP.

- *Increase and simplify CACFP meal and snack reimbursement rates to offset the high cost of healthy foods*
- *Add a third meal or snack option to meet the nutrition needs of children in care for longer hours*
- *Revise the area eligibility guideline to make participation feasible for family child care homes located in neighborhoods where at least 40 percent of elementary school children qualify for free or reduced price school lunch (currently, this is set at 50 percent)*
- *Streamline and simplify program and paperwork requirements for states, sponsoring organizations, child care providers and parents*
- *Direct the Secretary of Agriculture to promptly issue proposed regulations updating the CACFP meal pattern and reimbursements immediately after publication of the upcoming Institute of Medicine's CACFP Meal Pattern Report*

3. School Breakfast and Lunch

Research has shown that school breakfast improves child health, and can have positive effects on children's health and their academic performance of young children (14-17). For instance children in the school breakfast program double their intake of fruits and vegetables. School breakfast

doubles the amount of milk they drink (18), and it reduces the overall fat intake of children (19). These are tangible things that improve functioning *and* they prevent obesity. While school breakfast improves dietary intake, it also improves intake of micronutrients, and improves health. For example, school breakfast has been found to reduce the likelihood of micronutrient deficiencies in vitamin C, E and folate. School breakfast ensures that children get adequate intakes of potassium and iron (19). Finally, school breakfast participation has been shown to reduce the amount of children's complaints of stomachaches and headaches (20). School lunch has the same positive effect (21, 22).

But access to breakfast and lunch needs major improvement. And the reimbursement rates must be improved in order to ensure that the nutrition programs maximize access to nutritious foods. This is based on data from the United States Department of Agriculture (23).

Recommendations

School meals must 1) be appropriate in terms of nutritional quality, and 2) be accessible. These are mutually interdependent.

I) Appropriate Food: Good Quality

Improving nutritional quality is something that all of us can agree on, and we can adopt the same can-do attitude that The First Lady is promoting in her *Lets Move!* campaign. Our recommendations are in sync with the Secretary of Agriculture's recommendations at this time:

- *Establish improved nutrition standards for school meals based on the Dietary Guidelines for Americans and ensure that reimbursement rates support these nutrition standards. Take additional steps to ensure compliance with these standards*
- *Provide schools with better equipment and assist them financially to purchase the tools necessary to produce healthy, appealing meals.*

II) Access to Food: Improved administrative processes and improved eligibility standards.

The success story of Philadelphia, my home city, is a place for us to pause. For 18 years, Philadelphia has had a **Universal Service** school lunch program. This is because 75% or more of the children in the school district are living at or around the poverty line. All of the public schools automatically provide free lunch to all of the children in the school. Because no child is singled out as a kid who is getting free lunch, stigma is greatly reduced. Three validation studies have proven that this way of offering lunch and breakfast improves child nutrition and reduces administrative burden and cost (to the tune of 800,000 dollars a year). Given this data, we recommend to

- *Support the Secretary of Agriculture's plan to establish area eligibility for school breakfast and lunch. This means basing universal service free and reduced price lunch programs on the population percentage of eligible children available through publicly maintained datasets. This eliminates unnecessary and time-consuming paperwork for parents and administrators that acts as a barrier to participation;*
- *Consider similar arrangements for after-school and summer feeding programs, which are not widely available and often delivered in an ad hoc manner.*

4. Ensure Accountability: Establish a National Plan to End Childhood Hunger

I began this testimony by referring to children who are living in food insecure homes and reminding you of our research that demonstrates that food insecurity is a national crisis. Yet the food insecurity rates in this country were unacceptable and outrageous long before this current economic downturn. Food insecurity rates in 2008 for households with children were two to three times that of all other households, and the fact that households with children have seen the most dramatic increases in food insecurity in recent years. These devastating facts illustrate that the Child Nutrition Reauthorization is the best opportunity for Congress to get a true rendering of what it would take to put an end to childhood hunger.

So far, the United States has missed every single one of its goals for reducing hunger over the past ten years, and, this year, it will shamefully miss the Healthy People 2010 goal of reducing hunger to 6%. Our current national hunger rate was 14.6% in 2008 (2) and, in the last quarter of 2009, was 18% (3). A major factor in the rise of food insecurity rates in this country is the fact that there is no single coordinated effort to end child hunger. The agencies that can have an impact on child hunger are primarily the USDA, the Department of Education, the Department of Health, the Department of Energy and the Department of Housing and Urban Development. Currently, when the FNS/USDA, or the CDC sets a goal for reducing hunger, there is no mechanism of accountability, and the high rates of hunger either continue, or—as in the case of our current economic downturn—dramatically increase.

Recommendations

- *Appropriate funds to establish a national strategy to end child hunger by 2015 and put the USDA in the lead of convening and facilitating this strategy.*
- *Create a mandate to establish national benchmarks of food insecurity rates and determine goals for halving and then ending measurable childhood hunger.*

5. Increase civic participation in child nutrition programs

In addition to maximizing the number of eligible families and children receiving the Child Nutrition benefits and improving the nutritional quality of those benefits, each of the child nutrition programs should enlist participants in the decision making about the implementation and evaluation of programs. So much of what is written into legislation looks good on paper, yet it often does not work or function according to plan. The people who participate in these programs—in this case the parents and caregivers of children—know best how they work. There should be formal mechanisms in place for families to share their experiences and their ideas about how well the programs work. Moreover, our accountability mechanisms must be improved. I can explain this concept in very real terms.

Through a program I founded called Witnesses to Hunger, I work directly with low-income families in Philadelphia to elicit their experiences of raising their children in poverty and experiencing hunger. All of the families I work with appreciate and rely on the child nutrition programs. They often ask rhetorically, “Without these programs, what would my children eat?” We have heard from many parents the terrible experience of not having enough food to feed their children. One situation that sticks in my mind is that of Marinette Roman and her five children. After having lost her job as a security guard at an area hospital, Marinette could no longer afford to pay her rent. She landed in the worst place imaginable for her: a homeless shelter for women and

children. Shelters receive CACFP funding so that the families with children can eat. In theory this is so they won't have to suffer hunger. Unfortunately, this was not the case for Marinette Roman and her family. The food was inadequate and in such insufficient quantities to the point that Luis, Marinette's 13-year-old son, began to lose a great deal of weight from his already thin frame. When he was interviewed on national television last year, he explained that he hid the fact that he was hungry from his friends. He explained that when he's hungry his stomach gets so empty he feels like throwing up. What does he do when this happens? He tries not to think about it; he just tries to go to sleep.



CBS News correspondent Seth Doane talks with 13-year-old Luis Roman. (CBS National News, June 5, 2009)

The CACFP was put in place in part so that when children have to suffer the indignity of homelessness, they should not ever have to experience hunger on top of that. Clearly, Luis Roman would not be going hungry if the appropriate reimbursement amounts, the oversight and the accountability were in place. Without talking to the people at the shelters, would we know that the quantity and quality of the food was inadequate? Without talking to children and families who participate in the school lunch programs, would we know if they were truly accessible and good quality? Contrary to a popular myth that portrays low income parents as either disengaged or demanding a hand-out, low income parents are willing, capable and truly desire to be a part of the process of ensuring their children's health, wellbeing, learning and earning potential.

Recommendations

- *Establish a mechanism that ensures the inclusion of low-income families in the implementation and evaluation of new and ongoing initiatives within Child Nutrition Reauthorization through public forums, formal listening sessions, web-based communications, and the active engagement of parent groups associated with schools, day care centers and shelters.*

Concluding Remarks

Early childhood nutrition lays the foundation for lifelong health. Research has shown that the first three years of life are the period of most rapid brain and body growth. These early years open critical windows of opportunity for growth and development. If a child does not receive adequate nutrition in these years, those windows close and do not reopen fully, ever. Children's bodies and minds are growing now and we do not have time to wait. Thoughtful attention to children's nutrition in their early years can set the trajectory for healthy growth and development long before children cross the threshold of first grade. Rather than turn away, let us turn our heads toward the Child Nutrition Program Reauthorization. Let's see this legislation as an opportunity for every child to be successful and to be healthy. Let us see food as medicine and economic strength, and let us not stop short of providing that medicine to all the children who need it in the most seamless and sustainable manner possible. And finally, let's not turn our heads away from the harsh realities of hunger and let's see these programs not only as a way to nourish a child, but to nourish our nation's future.

Works Cited

1. Nord M, Andrews M, Carlson S. Household Food Security in the United States, 2007. Washington, DC: USDA/ERS; 2008.
2. Nord M, Andrews M, Carlson S. Household Food Security in the United States, 2008. Washington, DC: United States Department of Agriculture; 2009.
3. Gallup-Healthways Well-Being Index. Food Hardship: A Closer Look at Hunger Data for the Nation, States, 100 MSAs, and Every Congressional District. Washington, D.C.; 2010.
4. Cook J, March E, Ettinger de Cuba S. Even Very Low Levels of Food Insecurity Found to Harm Children's Health. Children's HealthWatch, May 2009.; 2009 May.
5. Cook JT, Frank DA, Berkowitz C, Black MM, Casey PH, Cutts DB, et al. Food insecurity is associated with adverse health outcomes among human infants and toddlers. *J Nutr* 2004;134(6):1432-8.
6. Skalicky A, Meyers AF, Adams WG, Yang Z, Cook JT, Frank DA. Child Food Insecurity and Iron-Deficiency Anemia in Low-Income Infants and Toddlers in the United States. *Matern Child Health J* 2006.
7. Rose-Jacobs R, Black MM, Casey PH, Cook JT, Cutts DB, Chilton M, et al. Household food insecurity: associations with at-risk infant and toddler development. *Pediatrics* 2008;121(1):65-72.
8. Alaimo K, Olson CM, Frongillo EA, Jr. Food insufficiency and American school-aged children's cognitive, academic, and psychosocial development. *Pediatrics* 2001;108(1):44-53.
9. Jyoti DF, Frongillo EA, Jones SJ. Food insecurity affects school children's academic performance, weight gain, and social skills. *J Nutr* 2005;135(12):2831-9.
10. Jeng K, March E, Cook J, Ettinger de Cuba S. Feeding Our Future: Growing Up Healthy with WIC. Boston, MA; 2009.
11. Whaley S, Gomez J, Mallo N. It's 12 O'clock... What Are Our Preschoolers Eating For Lunch? An Assessment of Nutrition and the Nutrition Environment in Licensed Child Care in Los Angeles County. Los Angeles, CA; 2008 July.
12. Gayman A, Ettinger de Cuba S, March E, Cook J, Coleman S, Frank D. Child Care Feeding Programs Support Young Children's Healthy Development. Boston, MA; 2010 January.
13. HCUPnet. HCUPnet, Healthcare Cost and Utilization Project. Agency for Healthcare Research and Quality, Rockville, MD. <http://hcupnet.ahrq.gov/>. Data analyzed by Children's HealthWatch. In; 2010.
14. Kleinman RE, Hall S, Green H, Korzec-Ramirez D, Patton K, Pagano ME, et al. Diet, breakfast, and academic performance in children. *Ann Nutr Metab* 2002;46 Suppl 1:24-30.
15. Meyers AF, Sampson AE, Weitzman M, Rogers BL, Kayne H. School Breakfast Program and school performance. *Am J Dis Child* 1989;143(10):1234-9.
16. Hoyland A, Dye L, Lawton CL. A systematic review of the effect of breakfast on the cognitive performance of children and adolescents. *Nutr Res Rev* 2009;22(2):220-43.
17. Mahoney CR, Taylor HA, Kanarek RB, Samuel P. Effect of breakfast composition on cognitive processes in elementary school children. *Physiol Behav* 2005;85(5):635-45.
18. Basiotis P, Lino M, Anand R. Eating Breakfast Greatly Improves Schoolchildren's Diet Quality. Washington, DC: US Department of Agriculture; 1999. Report No.: Nutrition Insight 15.
19. Bhattacharya J, Currie J, Haider S. Breakfast of champions?: the school breakfast program and nutrition of Children and families. Washington, DC: U.S. Department of Agriculture; 2004 2004.
20. Wahlstrom KL, Begalle MS. More than test scores: results of the Universal School Breakfast Pilot in Minnesota. *Topics in Clinical Nutrition* 1999;15(1):17-29.
21. Crepinsek MK, Gordon AR, McKinney PM, Condon EM, Wilson A. Meals offered and served in US public schools: do they meet nutrient standards? *J Am Diet Assoc* 2009;109(2 Suppl):S31-43.
22. Ralston K, Newman C, Clausen A, Guthrie J, Buzby J. The National School Lunch Program: Background, Issues, and Trends. Washington, D.C.: United States Department of Agriculture; 2008 July.
23. Food and Nutrition Service. School Lunch and Breakfast Cost Study – II. Washington, DC: United States Department of Agriculture; 2008 April.